

OPERATING EXPERIENCE WEEKLY SUMMARY

Office of Nuclear and Facility Safety

June 26 - July 2, 1998

Summary 98-26

Operating Experience Weekly Summary 98-26

June 26 through July 2, 1998

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EVENTS

1. LOSS OF RADIOACTIVE CHECK SOURCE

On June 23, 1998, at Rocky Flats Environmental Technology Site Non-Plutonium Operations Area III, a nondestructive analysis worker lost a 3.5-microcurie barium check source when he left it unattended, violating procedures. Operations personnel conducted a search to locate the source, which was disc-shaped and encased in plastic. Investigators believe that operations personnel accidentally swept up the source along with other debris and that sanitary workers employed by a private sanitary waste company transported it to an off-site landfill. The nondestructive analysis manager issued a stop work order for source usage. The facility manager initiated a recovery effort and notified the landfill of the event. Landfill employees isolated the area where they believe the debris was unloaded. The lack of accountability and failure to follow procedures resulted in a lost source and could result in exposures to the public if the source is damaged. (ORPS Report RFO--KHLL-NONPUOPS3-1998-0003)

Investigators determined that the worker placed the source on a utility room shelf in a non-radiological area and left it unattended for approximately 2 hours. During the worker's absence, operations personnel disassembled the shelf; however, they told investigators that they did not see the source. Investigators determined that operations personnel swept the floor after they disassembled the shelf, placed the debris in a plastic bag, and placed the bag in an on-site dumpster. Sanitary personnel later collected the dumpster contents and disposed of them at the off-site landfill. Facility personnel will continue their efforts to locate the source. The facility manager is continuing to review this event and will develop corrective actions.

NFS has reported on the loss of sources in several Weekly Summaries. Following are some examples.

- Weekly Summary 98-06 reported that a facility manager at the Rocky Flats Environmental Technology Site reported loss of accountability of a sealed, 150-mCi tritium source contained in an electron-capture detector and installed in a gas chromatograph. Property utilization and disposal personnel received the gas chromatograph from the plutonium manufacturing and assembly complex, opened it, discovered the source, and notified radiological control personnel because they recognized the trefoil symbol. (ORPS Report RFO--KHLL-FACOPS-1998-0002)
- Weekly Summary 97-34 reported that a facility manager at the Sandia National Laboratory discovered that a gas chromatograph containing a 150-mCi tritium source was not registered in the site source registry. Investigators determined that a source custodian did not register it when it was received from the manufacturer, resulting in a loss of accountability of the sealed source. (ORPS Report ALO-KO-SNL-6000-1997-0007)

- Weekly Summary 93-20 reported that health physics personnel at the Savannah River Site discovered an ion chamber with a sealed 85- μ Ci source in a dumpster. They were conducting a search for previously exempted sources that were no longer exempt and required accountability. When health physics personnel searched other areas of the facility, they found three more sources. (ORPS Report SR--WSRC-WVIT-1993-0036)

These events emphasize the importance of strict accountability of radioactive sources and demonstrate the need for a strong radioactive source control program. DOE maintains a regulatory position paper on sealed radioactive source controls. The position paper states: "these requirements were determined to be necessary for an adequate radiation protection program." Personnel responsible for radioactive source control at DOE facilities should ensure their source control program includes the following elements from DOE N 441.1 through DOE N 441.3.

- administrative procedures for the control of accountable sealed radioactive sources
- labels on all accountable sources, or their storage containers or devices, with the standard radiation warning trefoil and the words, "Caution, Radioactive Material"
- an individual designated to maintain control of assigned accountable sources (The individual shall be trained as a radiological worker in accordance with 10 CFR 835.902 and instructed on site-specific source control procedures.)
- periodic inventory of each accountable source at intervals not to exceed 6 months (The inventory should verify (1) physical location of each source, (2) adequacy of postings and labels, and (3) adequacy of storage locations, containers, and devices.)
- integrity test of each source (with an activity exceeding 0.005 μ Ci) upon receipt, when damage is suspected, and at intervals not to exceed 6 months

Personnel working at DOE facilities should have a continually questioning attitude toward safety issues. Each individual is ultimately responsible for complying with rules to ensure personal safety. Facility managers should communicate a sound policy stressing that safety is of prime importance and that all personnel must exhibit an individual commitment to excellence and professionalism. Personnel in charge of storing radioactive sources should review the following guidance and should ensure that sources are stored in physical locations that prevent personnel exposure.

- DOE/EH-256T, *Radiological Control Manual*, requires control and accountability of sealed radioactive sources. It states that each person involved in radiological work is expected to demonstrate responsibility and accountability through an informed, disciplined, and cautious attitude toward radiation and radioactivity. The manual sets forth DOE

guidance on the proper course of action in the area of radiological control, including work preparation; work controls; monitoring and surveys; and training and qualifications. Section 123, "Worker Responsibilities," states that trained personnel should recognize that their actions directly affect contamination control, personnel radiation exposure, and the overall radiological environment associated with their work.

- DOE N 441.3, *Radiological Protection for DOE Activities*, requires control and accountability of sealed radioactive sources. However, this notice applies only to defense nuclear facilities. The majority of pertinent radiological protection requirements have become codified through promulgation of 10 CFR 835, *Occupational Radiation Protection*. However, 10 CFR 835 currently does not address sealed radioactive source accountability; source accountability will be addressed in a pending amendment. Facility managers should refer to DOE/EH-256T, *Radiological Control Manual*, for information on the control and accountability of sealed radioactive sources.
- DOE Implementation Guide G-N 5400.9/M1-Rev.1, *Sealed Radioactive Source Accountability and Control*, provides guidance for establishing and operating a sealed source accountability and control program. Specific guidance includes organization and responsibilities, receipt, labeling and storage, inventory, integrity testing, and handling and disposal.

Links to DOE radiation protection documents can be found at URL <http://tis-nt.eh.doe.gov/wpohm/regs/regs.htm>.

KEYWORDS: sealed source, accountability, radiation protection, procedure, landfill

FUNCTIONAL AREAS: Radiation Protection, Procedures, Materials Handling/Storage, Environmental Protection

2. EMPLOYEES INJURED DURING HOISTING AND RIGGING ACTIVITIES

This week OEAF engineers reviewed two events involving personnel injuries that occurred during hoisting and rigging operations. On June 23, 1998, at the Ashtabula Decommissioning Project, a subcontractor ironworker received multiple fractures to his leg when he tried to control a swinging bundle of structural steel beams being lifted by a crane. The load struck other structural steel components in the lay-down area, causing a scissor effect of two pieces of steel that pinched the right leg of the ironworker. Medical personnel splinted the leg, stabilized the ironworker at the scene, and transported him to a local hospital. On June 26, 1998, a subcontractor steelworker was injured at a Lawrence Livermore National Laboratory (LLNL) construction site when his head was trapped between a steel truss beam and an outrigger on a crane. The worker received lacerations to the temple area from his aluminum hard hat. LLNL emergency response personnel treated the steelworker at the scene and had him transported to a local hospital, where he was treated and released. The subcontractor suspended material-

handling activities at the construction site. Failure to observe safe hoisting and rigging practices leads to loss of positive control of loads and the potential for injuring personnel. (ORPS Report OH-AB-RMI-RMIDP-1998-0003, ORPS Report SAN--LLNL-LLNL-1998-0034)

Ashtabula investigators determined that the ironworker was assisting with a lift associated with organizing the lay-down area. They also determined that riggers used two steel choker lines to attach a bundle of steel beams to the crane hook, intending to lay the approximately 500-pound bundle flat on the ground. The crane operator placed tension on the lines, instructed workers to clear the area, and tilted the load to the ground. However, the load did not seat well on the blocking, so the crane operator began to lift the bundle again. As he did so, the load began to swing, and the ironworker attempted to control it. Figure 2-1 shows the accident scene. The inset in the upper right corner shows a re-enactment of the position of the ironworker's leg. Investigators determined that (1) the crane operator picked up the load at the wrong angle, (2) riggers should have used a tag line to help control the load, and (3) the ironworker violated hoisting and rigging standard procedures by rushing in to control a swinging load. The facility manager implemented immediate corrective actions that included a stand-down of steel erection operations; review of the incident; and review of safe work practices when rigging, hoisting, and lifting.



Figure 2-1. Ashtabula Accident Scene
(Courtesy of RMI Environmental Services)

LLNL investigators determined that the steelworker was injured while reorganizing steel trusses in the area before workers erected them. Laboratory managers are conducting an investigation of the event to determine causes and corrective actions. OEAF engineers will follow the investigation and provide additional details about the event when they become available.

NFS has reported loss of control of loads during hoisting and rigging operations in several Weekly Summaries. Following are some examples.

- Weekly Summary 98-01 reported that as riggers at the Hanford Site lowered a drum onto a trailer, the drum slipped free of its rigging and fell over. A rigger working on the trailer bed jumped away from the falling load, fell off the trailer, and sustained a head injury. (ORPS Reports RL--PNNL-PNNLBOPEM-1997-0002, RL--PHMC-FSS-1997-0030)
- Weekly Summary 96-51 reported that a construction worker at the Pantex Plant was injured when a 250-pound steel plate knocked him from a step ladder and he fell 4 feet to the floor. Two construction workers were lifting the plate with a hand-operated chain hoist. The chain was not properly rigged, and it came loose when one of the workers shook the load to clear an obstruction. (ORPS Report ALO-AO-MHSM-PANTEX-1996-0239)

These events illustrate the importance of observing safe hoisting and rigging practices. Personnel involved in hoisting and rigging must understand basic safe practices for these operations, including the use of tag lines to prevent undesirable rotation of the load. The following references should be understood by personnel involved in hoisting and rigging.

- DOE-STD-1090-96, rev. 1, *Hoisting and Rigging*, provides guidance for hoisting and rigging and identifies related codes, standards, and regulations. Chapter 6, "Personnel Qualification and Training," specifies training requirements for equipment operators and riggers. Section 9.5.8, "Moving the Load," specifies the use of tag lines to guide, snub, or otherwise control the load.
- ASME B30.20-1993, *Below-The-Hook Lifting Devices*, chapter 20-1, applies to the classification, construction, inspection, installation, testing, maintenance, and operation of structural and mechanical lifting devices.
- DOE Office of Oversight publication, *Independent Oversight Special Study of Hoisting and Rigging Incidents Within the Department of Energy*, October 1996, presents an analysis of DOE hoisting and rigging incidents between October 1, 1993, and March 31, 1996. This study showed that three out of four hoisting and rigging incidents resulted in an accident where personal injury, property damage, or both was incurred. Half of all hoisting and rigging incidents are associated with the use of crane equipment. Seventy-four percent of crane incidents resulted in accidents. Inattention to detail, closely followed by deficiencies in work organization and planning, are the leading causes of crane incidents. This special study can be found at URL http://nattie.eh.doe.gov/web/eh2/reviews/hoist_rig.html.

KEYWORDS: hoisting and rigging, rigging

FUNCTIONAL AREAS: Hoisting and Rigging

PRICE-ANDERSON AMENDMENTS ACT INFORMATION

1. TWO PRELIMINARY NOTICES OF VIOLATION FOR EUROPIUM CONTAMINATION EVENT AT INEEL

On June 4, 1998, the DOE Office of Enforcement and Investigation issued two Preliminary Notices of Violation under the Price-Anderson Amendments Act for an uncontrolled europium contamination event that occurred at the Idaho National Engineering and Environmental Laboratory on September 17, 1997. Europium is a rare earth metal that has a powder-like consistency, can easily become airborne, and is difficult to control. The Office of Enforcement and Investigation issued one Preliminary Notice of Violation to each company involved in the event: Lockheed Martin Idaho Technologies Company (LMITCO) and MAC Isotopes (MAC). LMITCO is the site prime contractor to DOE; MAC is a subcontractor to LMITCO. The Notice to LMITCO proposes a \$125,000 fine for deficient radiological work control processes, including: deficient work document preparation and review; deficient As-Low-As-Reasonably-Achievable (ALARA) planning and review; failure to follow procedures, and deficiencies in radiological control training. The Notice to MAC proposes a \$25,000 fine for deficient radiological work control processes, including: deficient work document preparation and review, deficient ALARA planning and review, and failure to follow procedures. Investigators were concerned that the LMITCO violations represented multiple failures across several organizations and a continuing trend of failure to adhere to radiological work control regulatory requirements. The uncontrolled europium contamination event resulted in the contamination of six workers and the entire facility. (NTS-ID--LITC-TRA-1997-0003; ORPS Report ID--LITC-TRA-1997-0021; Letter, DOE (P. Brush) to Lockheed Martin Idaho Technologies Company (W. Denson), 6/4/98; and Letter, DOE (P. Brush) to MAC Isotopes, L.L.C (S. Laflin), 6/4/98)

The Office of Enforcement and Investigation staff identified multiple deficiencies and classified them as Severity Level II violations in the Preliminary Notices of Violation. Severity Level II violations are significant violations that demonstrate a lack of attention or carelessness toward safety that could potentially lead to adverse impacts. Investigators determined that these deficiencies represent potential violations of 10 CFR 830.120, *Quality Assurance Requirements*, and 10 CFR 835, *Occupational Radiation Protection*. The Notices describe (1) multiple procedure violations, (2) ALARA violations, and (3) radiological control violations. The LMITCO Notice also describes training and radiological monitoring violations.

PROCEDURE VIOLATIONS

Investigators determined that work was not performed to established administrative controls using approved instructions and procedures. They proposed a collective civil penalty of \$25,000 to LMITCO and \$12,500 to MAC for the following violations.

- inadequate development of work order packages for contaminated manipulator maintenance
- failure to document and ensure all personnel attended a pre-job briefing
- failure to comply with written work instructions

ALARA VIOLATIONS

Investigators determined that procedures were not followed or were inadequate to maintain personnel exposures ALARA. They proposed a collective civil penalty of \$25,000 to LMITCO and \$12,500 to MAC. The following violations were proposed for each company, unless identified otherwise.

- failure to submit the maintenance work order to the ALARA committee for radiological hazards and consequences evaluation
- failure to stop work when a limiting condition of the radiological work permit was exceeded
- failure to perform job-specific air sampling, determine an airborne hazard index, or provide a release fraction parameter (LMITCO only)
- failure to perform an adequate ALARA review of the work order (LMITCO only)

RADIOLOGICAL CONTROL AND MONITORING VIOLATIONS

Investigators determined that radioactive contamination control and monitoring were inadequate and failed to ensure compliance with regulations. They proposed a civil penalty of \$25,000 for each violation to LMITCO and \$12,500 to MAC (in combination with the ALARA violations) for the contamination control violation.

- failure to control the work area commensurate with the physical characteristics of europium powder (LMITCO and MAC)
- failure to perform characterization surveys before removing the manipulator sleeve (LMITCO only)

TRAINING VIOLATIONS

Investigators determined that a radiological control technician's training level was not commensurate with his assignment. They proposed a collective civil penalty of \$25,000 to LMITCO for the following violations.

- failure to (1) provide on-the-job manipulator repair training to the technician; (2) inform the technician of the behavior, physical, and radiological characteristics of europium; and (3) ensure the technician participated in or observed a prior manipulator removal
- failure to address hot-cell manipulator withdrawal, repair, or insertion in facility radiological control technician training and failure to emphasize the importance of familiarity with radiological and special physical properties of the facility radionuclides in the training

Investigators reduced MAC's proposed civil penalties by 50 percent for facility-specific corrective actions and voluntary cessation of europium processing pending completion of a review and process improvements. However, they determined that a reduction was not warranted for identifying and reporting the violations because the violations were identified as a result of the event. Investigators considered

reducing the proposed civil penalties for LMITCO. However, they determined that a reduction was not warranted because the violations were not identified as a result of proactive efforts to identify or correct work planning and control problems. Investigators also considered escalating the civil penalty for LMITCO because corrective actions from a previous similar event were not fully implemented. However, they considered the incomplete implementation of the previous corrective actions when proposing these violations; therefore, they determined that further escalation was inappropriate.

LMITCO and MAC managers have 30 days to reply to the Preliminary Notices of Violation and admit or deny the alleged violations. The Preliminary Notices of Violation will become final if they admit the allegations and provide sufficient corrective actions within the 30-day period. Enforcement actions can be found at the Office of Enforcement and Investigation web site at URL <http://tis-nt.eh.doe.gov/enforce/>.

NFS reported on the europium event in Weekly Summaries 97-39 and 97-48. NFS also reported issuance of Notices of Violation under the Price-Anderson Amendments Act in Weekly Summaries 98-15, 98-11, 97-52, 97-41, 97-29, 97-12, 97-02, 97-01, 96-43, and 96-30.

Under the provisions of the Price-Anderson Amendments Act, DOE can fine contractors for violations of Department rules, regulations, and compliance orders relating to nuclear safety requirements. DOE contractors who operate nuclear facilities and fail to implement corrective actions for identified deficiencies could be subjected to Price-Anderson civil penalties under the work processes and quality improvement provisions of 10 CFR 830.120, *Quality Assurance Requirements*. These actions include Notices of Violation and, where appropriate, non-reimbursable civil penalties.

The primary consideration for determining whether DOE takes enforcement action is the actual or potential safety significance of the violation, coupled with how quickly the contractor acts to identify and correct problems. The Office of Enforcement and Investigation may reduce penalties when a DOE contractor promptly identifies a violation, reports it to DOE, and undertakes timely corrective action. DOE has the discretion to decide not to issue a Notice of Violation in certain cases.

The Noncompliance Tracking System (Weekly Summaries 95-17 and 95-20) provides a means for contractors to promptly report potential noncompliances and take advantage of provisions in the enforcement policy. DOE STD-7501-95, *Development of DOE Lessons Learned Programs*, discusses management responsibility for incorporating appropriate corrective actions in a timely manner.

KEYWORDS: radiation protection, enforcement, Price-Anderson Act

FUNCTIONAL AREAS: Radiation Protection, Lessons Learned

1998 OEWS READER SURVEY

Following is the 1998 OEWS Reader Survey. The responses to the previous surveys were extremely valuable in helping us understand the needs of our customers and chart the course for the OEWS and other OEAF products. We again request your participation to help us learn more about our readership and what you think is valuable. We firmly believe that understanding your needs and perceptions is crucial to ensuring that the OEWS and other OEAF products are useful, quality products that have real benefits to you and the DOE.

Please help us help you by completing the survey and mailing or faxing it to:

Mr. I-Ling Chow, U.S. DOE
c/o Research Planning, Inc.
20251 Century Boulevard
Germantown, MD 20874
Phone: (301) 540-2396 Fax: (301) 540-2499

Or, if you prefer, an electronic copy of the survey is available for your convenience along with OEWS 98-26 at URL http://tis.eh.doe.gov/web/oeaf/oe_weekly/oe_weekly.html.

OEAF plans to provide information on the results of the survey in a future OEWS. Thank you in advance for your participation.

1. What is your job title?

- ☐ Facility Manager
- ☐ Report Originator
- ☐ Facility Representative
- ☐ Program Manager
- ☐ Other Manager
- ☐ Engineer/Analyst
- ☐ Supervisor
- ☐ Instructor
- ☐ Technician
- ☐ Other/please enter your title_____

2. In which department do you usually work?

- ☐ Criticality Safety
- ☐ Facility Operations
- ☐ Industrial Hygiene
- ☐ Maintenance
- ☐ Radiation Protection/Health Physics
- ☐ Industrial Safety
- ☐ Nuclear Safety
- ☐ Operating Experience Analysis/Lessons Learned
- ☐ Training
- ☐ Quality
- ☐ Security
- ☐ Engineering/Technical Support
- ☐ Other/please specify_____

3. How long have you been in your current position?_____

4. How many total years of experience do you have?_____

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5. Who is your employer?

- ☐ DOE
- ☐ Department of Transportation (DOT)
- ☐ Operating Contractor for DOE
- ☐ Other Contractor to DOE
- ☐ Subcontractor to an Operating Contractor
- ☐ Nuclear Regulatory Commission (NRC)
- ☐ Environmental Protection Agency (EPA)
- ☐ Occupational Safety and Health Administration (OSHA)
- ☐ Other Federal Government
- ☐ State Regulatory Agency
- ☐ Commercial Nuclear Utility
- ☐ University
- ☐ Medical Facility
- ☐ Other (please enter your organization)_____

6. Does your facility or organization (e.g., company, office, site) have a lessons-learned program?

- ☐ Yes
- ☐ No (Proceed to Question 11)

7. If yes, would you describe the program as formal (i.e., written guidance or procedures)?

- ☐ Yes
- ☐ No (Proceed to Question 11)

8. If yes, does the program include identification of specific corrective actions from reviewing operating experience/lessons-learned documents that may be applied to your facility?

- ☐ Yes
- ☐ No (Proceed to Question 11)

9. If yes, does the program include tracking the identified corrective actions?

- ☐ Yes
- ☐ No (Proceed to Question 11)

10. If yes, does the program track the effectiveness of the corrective actions?

- ☐ Yes
- ☐ No

11. Does your facility have a lessons-learned coordinator or point-of-contact?

- ☐ Yes
- ☐ No

Name: _____

Facility: _____

Dept./Organization: _____

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Phone Number: _____

Email Address: _____

12. Do you have formal distribution of the OEWS within your organization?

- ☐ Yes
- ☐ No

13. What is the physical appearance of the OEWS when it arrives?

- ☐ Acceptable
- ☐ Unacceptable

14. Do you share your copy of the OEWS?

- ☐ Yes, with ____ people
- ☐ No

15. How often do you read the OEWS?

- ☐ Every week
- ☐ Every other week
- ☐ Once a month
- ☐ Less frequently than once a month

16. How do you use the OEWS in your job (check all that apply)?

- ☐ Corrective Actions Program
- ☐ Industrial Safety Program
- ☐ Job Planning
- ☐ Lessons Learned Program
- ☐ Nuclear Safety Program
- ☐ ORPS Preparation
- ☐ Training Program
- ☐ Other/please specify (e.g., teaching materials)

17. How useful in your job are the articles in the OEWS?

- ☐ Very useful (e.g., at least one article in every issue is pertinent to your job)
- ☐ Somewhat useful (e.g., one article in every 4/5 issues is pertinent to your job)
- ☐ Rarely useful (e.g., only one article used each quarter)
- ☐ Never useful

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18. Do you believe the OEWS has contributed to improved safety performance at your site?

- ☐ Yes
- ☐ No

19. Do the articles in the OEWS contain sufficient information?

- ☐ Yes
- ☐ No (If no, what information do you feel should be included?)

20. On average, the length of the OEWS articles is:

- ☐ Too long (Many articles contain extraneous information and take too long to read.)
- ☐ Acceptable length (Most articles contain only pertinent information.)
- ☐ Too short (Most articles are missing pertinent information.)

21. How easy to understand are the articles in the OEWS?

- ☐ Too difficult (The writing is complex; many technical terms are not adequately defined.)
- ☐ Acceptable (The writing is clear; technical terms are adequately defined.)
- ☐ Too tedious (The writing is simplistic; too many common technical terms are defined.)

22. How useful are the "DOE Guidance" sections of OEWS articles (usually the last paragraph or two of the articles)?

- ☐ Very useful
- ☐ Somewhat useful
- ☐ Rarely useful
- ☐ Never useful

23. How useful are the suggested actions given in the OEWS articles?

- ☐ Very useful
- ☐ Somewhat useful
- ☐ Rarely useful
- ☐ Never useful

24. How useful are the following parts of OEWS articles when they are included?
("0" = Not Useful, "5" = Very Useful)

Description of event and significance (first paragraph)	0	1	2	3	4	5
Details of event (second paragraph)	0	1	2	3	4	5
Investigation and causes of event	0	1	2	3	4	5
Corrective actions	0	1	2	3	4	5

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Similar events	0	1	2	3	4	5
Regulatory guidance	0	1	2	3	4	5
Key words	0	1	2	3	4	5
Functional areas	0	1	2	3	4	5
Trend of similar occurrences (graph)	0	1	2	3	4	5
Causes of similar occurrences (graph)	0	1	2	3	4	5
Distribution of similar occurrences by field office (graph)	0	1	2	3	4	5
Photograph of occurrence scene	0	1	2	3	4	5
Floor plan of occurrence scene	0	1	2	3	4	5
Drawing or photograph of equipment	0	1	2	3	4	5

25. Some of the information presented in an OEWS article is based on the investigation and critique of the occurrence. Because new information may be uncovered during the investigation, there is a trade-off between the timeliness of an article and attributes such as completeness and depth of analysis. For each attribute in the pairs below, circle the one that is most important to you in an OEWS article. If you prefer timeliness versus completeness, circle timeliness. If you prefer depth of analysis versus timeliness, circle depth of analysis.

Timeliness

Completeness

Timeliness

Depth of Analysis

26. How frequently should DOE publish the OEWS?

- ☐ Once a week
- ☐ Once every two weeks
- ☐ Once per month
- ☐ Other/Please

specify_____

27. Since you have been receiving the OEWS, has the overall quality/usefulness:

- ☐ Increased
- ☐ Decreased
- ☐ No change
- ☐ Don't know

28. Over the last year, has the overall quality/usefulness:

- ☐ Increased
- ☐ Decreased

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- ☐ No change
☐ Don't know

29. Which of the following subjects do you think should be covered in the OEWS?
 ("0" = Never include, "3" = OEWS covers the subject sufficiently, "5" = Include more frequently)

Criticality Safety	0	1	2	3	4	5	
Industrial Safety	0	1	2	3	4	5	
Transportation	0	1	2	3	4	5	
Radiation Protection	0	1	2	3	4	5	
Work Control		0	1	2	3	4	5
Conduct of Work	0	1	2	3	4	5	
Conduct of Operations	0	1	2	3	4	5	
Training	0	1	2	3	4	5	
Engineering & Design	0	1	2	3	4	5	
Lessons Learned from Commercial Nuclear Utilities	0	1	2	3	4	5	
Operating Experience Analysis	0	1	2	3	4	5	
Nuclear Safety	0	1	2	3	4	5	
Good Practices	0	1	2	3	4	5	
Cost-Beneficial Activities	0	1	2	3	4	5	
Emergency Planning/ Environmental Protection	0	1	2	3	4	5	
Other/please specify	_____						

30. How would you improve the OEWS (what are important attributes the OEWS should have but are currently lacking/inadequate)? _____

31. Should DOE periodically publish an index of OEWS article titles to help find past articles of

interest to rea

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- ☐ Yes
- ☐ No (Proceed to Question 33)
- ☐ Not sure (Proceed to Question 33)

32. If yes, which index subjects would be most useful (check all that apply)?

- ☐ OEWS article title
- ☐ Facility where event occurred
- ☐ Subject of article (key words)
- ☐ All of the above

33. What other Operating Experience or lessons learned products would be useful to your facility? _____

34. In your opinion, is there a need for another Operating Experience product which is published:

- ☐ Monthly
- ☐ Quarterly
- ☐ Semi-annually
- ☐ Annually
- ☐ No need

35. Do you have any suggestions for content, format, medium, length, distribution, focus, etc.?

36. In your opinion, would a periodic publication highlighting outstanding programs at DOE facilities, sites, or organizations be useful?

- ☐ Yes
- ☐ No
- ☐ Not sure

37. Please indicate any specific programs at your facility that you consider to be outstanding and, as such, would be candidates for such a publication.

Facility: _____
Program: _____
Contact Name: _____
Phone Number: _____
Email Address: _____

38. Are you aware that you can write an article and work with the OEAF engineers to get it published in the OEWS?

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- ☐ Yes
- ☐ No

If you have information for an article please provide the following:

Contact Name: _____

Phone Number: _____

Email address: _____

39. Are you able to access the OEWS electronically on the network or through Internet access?

- ☐ Yes
- ☐ No

40. Are you aware that you can perform electronic word searches of all OE Weekly Summaries from the Weekly Summary web page?

- ☐ Yes
- ☐ No

If yes, how often do you use this feature?

- ☐ Once a week
- ☐ Once per month
- ☐ Never
- ☐ Other/please

specify _____

41. How useful in your job are the Safety Notices published by the Office of Nuclear Safety?

- ☐ Very useful
- ☐ Somewhat useful
- ☐ Rarely useful
- ☐ Never useful
- ☐ Not aware of Safety Notices (Proceed to Question 45)

42. Do the Safety Notices contain sufficient information?

- ☐ Yes
- ☐ No

If no, what information do you feel should be included?

43. On average, the length of the Safety Notices is:

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- ☐ Too long (Most notices contain extraneous information and take too long to read.)
- ☐ Acceptable (Most notices contain only pertinent information.)
- ☐ Too short (Most notices are missing pertinent information.)

44. How easy to understand are the Safety Notices?

- ☐ Too difficult (The writing is complex; many technical terms are not adequately defined.)
- ☐ Acceptable (The writing is clear; technical terms are adequately defined.)
- ☐ Too tedious (The writing is simplistic; too many common technical terms are defined.)

45. What other subjects for Safety or Technical Notices would be useful to your facility?

46. Would you like to receive the OEWS electronically (usually available the day it goes to print)?

- ☐ Yes
- ☐ No

If yes, please provide the following information:

Name	
Title	
Company	
Street Address	
City, State, Zip	
Phone Number	
Email Address	